

What is CAPT?

CAPT = CCPP-ARM Parameterization Testbed

CAPT combines the strengths of two DOE programs with complementary missions:

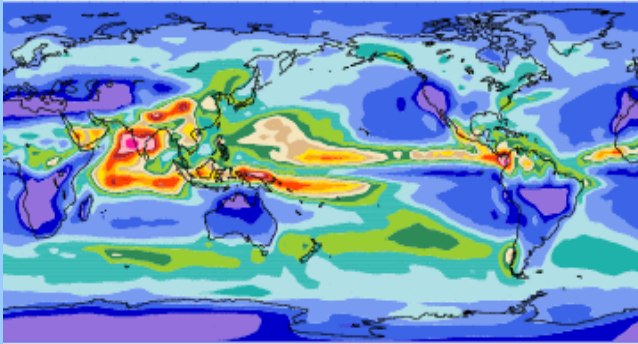
CCPP (*Climate Change Prediction Program*) Focus on GCM performance

ARM (*Atmospheric Radiation Measurement*) Focus of radiation and cloud processes and their parameterization in GCMs

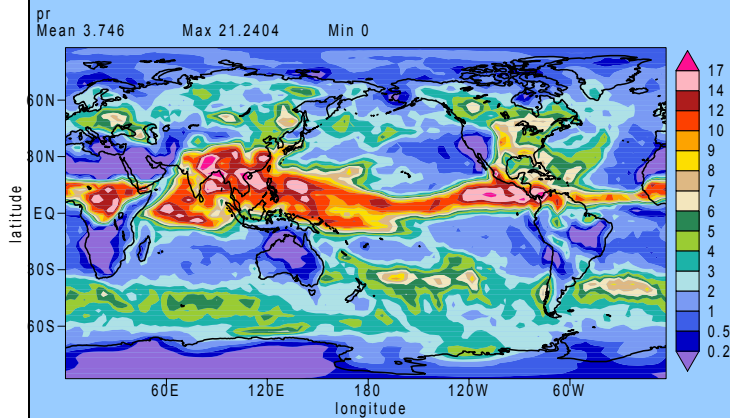
CAPT provides a flexible user environment for running GCMs in NWP 'forecast' mode:

- > global initialization data sets
- > processed global and local observations
- > high-frequency GCM forecast output
- > diagnostic analysis and visualization tools
- > experienced scientific staff to collaborate with parameterization developers

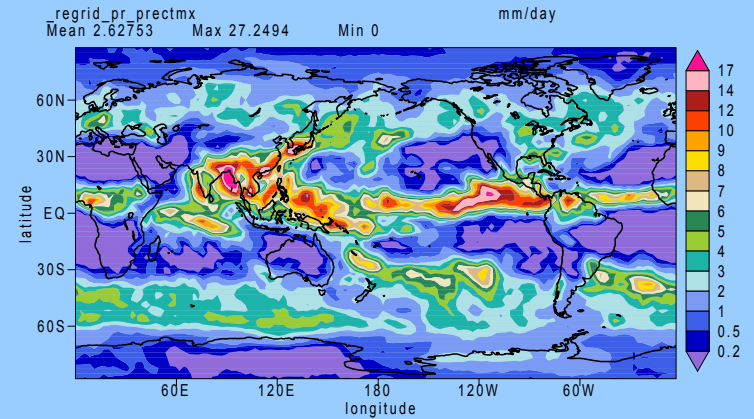
CAM2 JJA climatology



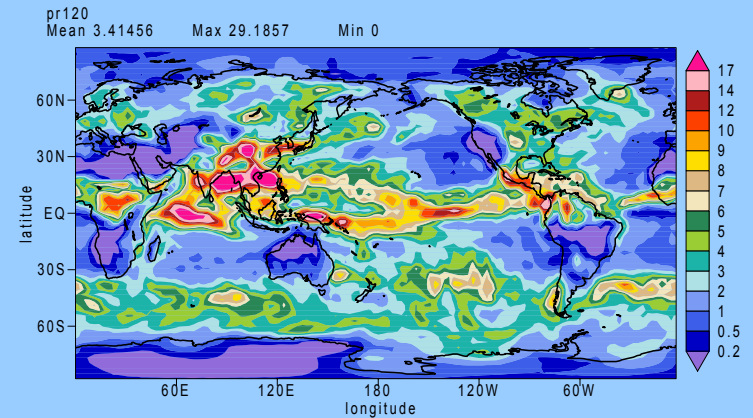
Forecast at 24 hours



GPCP June-July 1997 precipitation



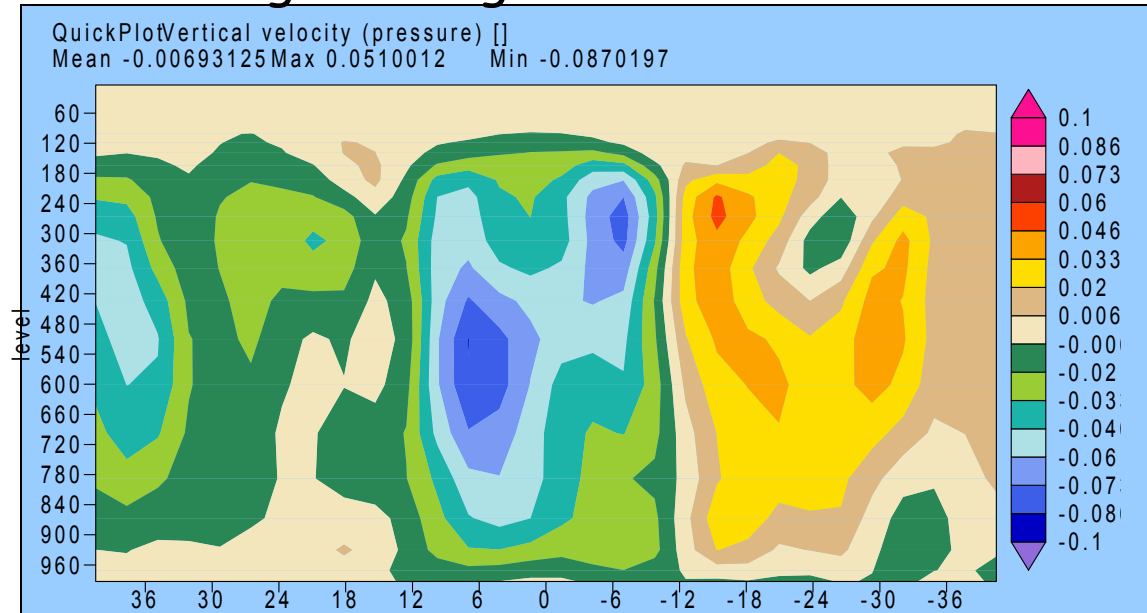
CAM2 forecast at day 5 (120 hours) Ensemble of 60 forecast*



*There is some indication that the systematic errors in the CAM2 climatology can be detected in day 5 or earlier forecasts

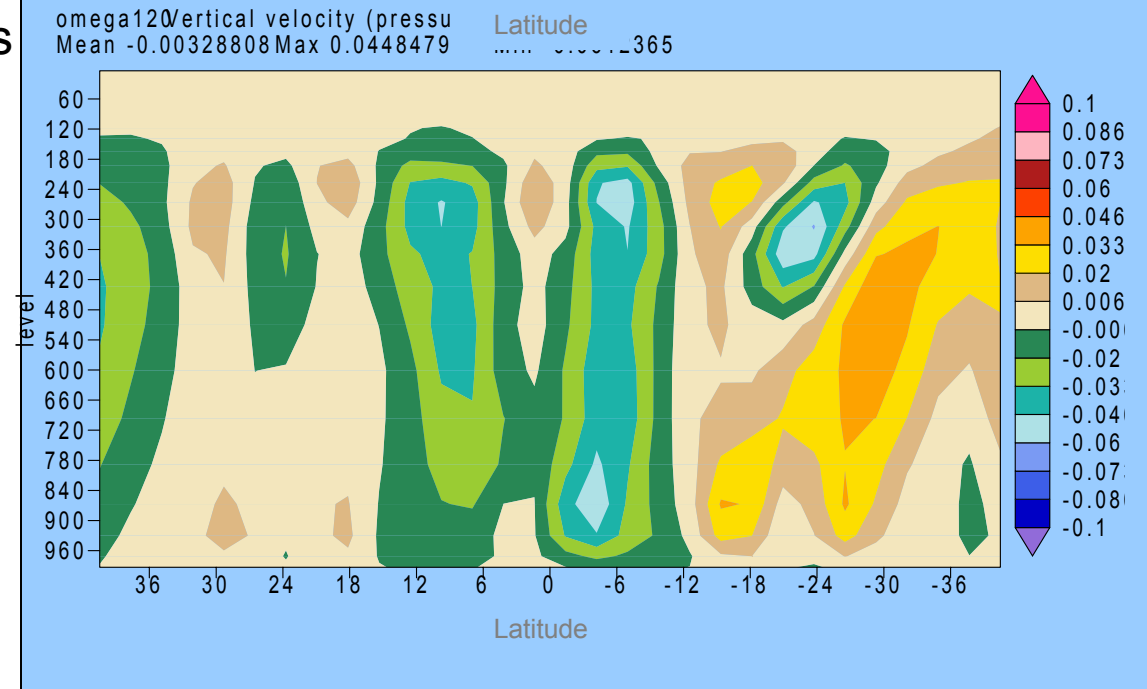
Latitude-height Omega at the international dateline

24 hours

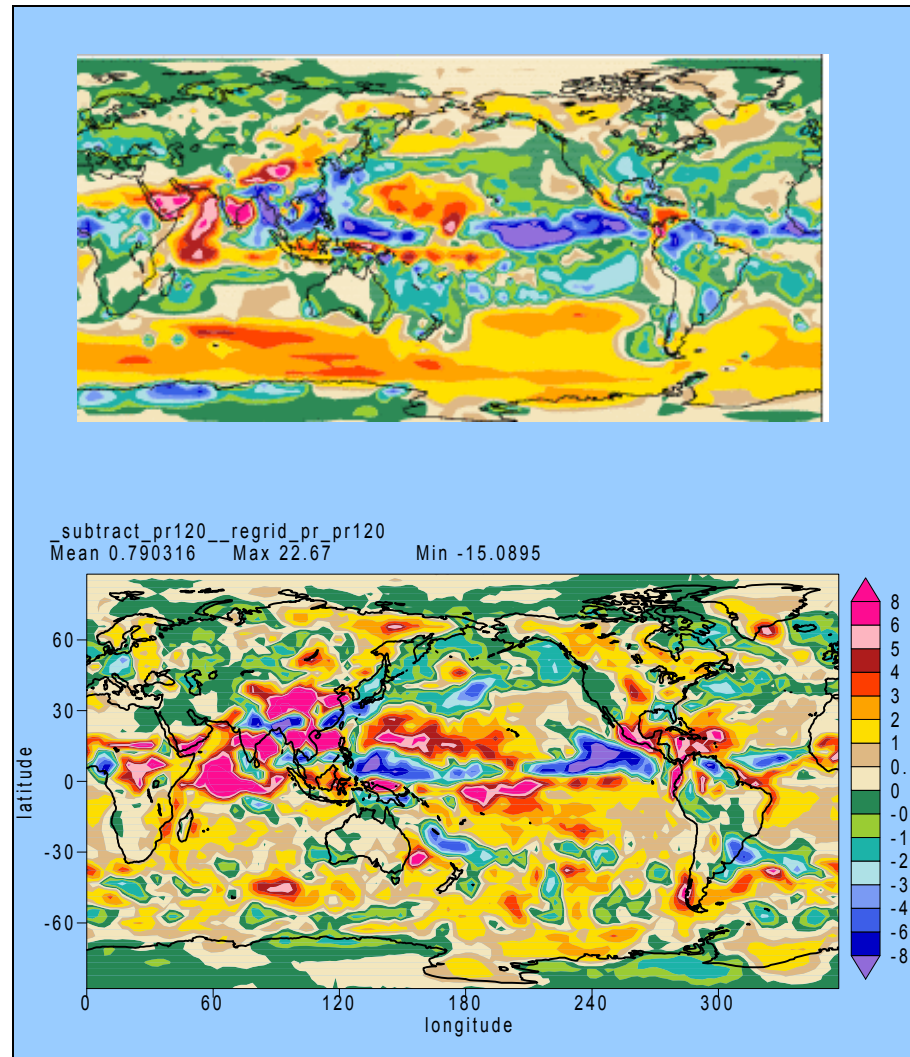


Ensemble averages

120 hours



Precipitations errors from the 5-day forecast ensemble are somewhat similar to the errors in climatology



Day 5 ensemble forecast with SST's superimposed

